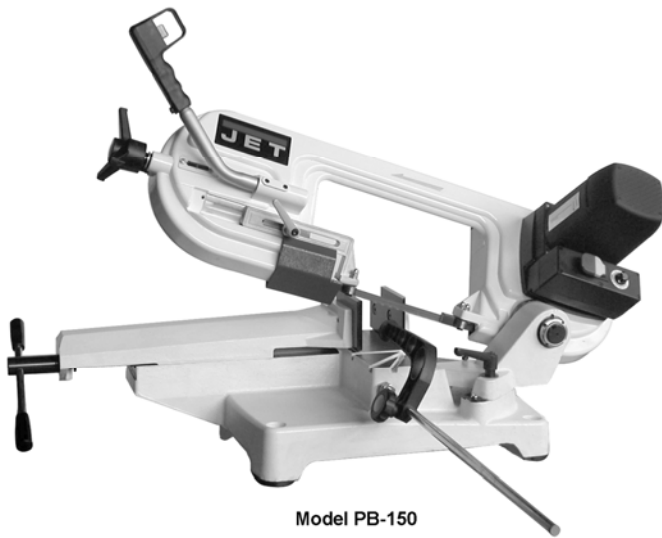


# JET<sup>®</sup>

## WMH TOOL GROUP

### Operating Instructions and Parts Manual Portable Horizontal Bandsaws

Models PB-85 and PB-150



Model PB-150



Model PB-85

#### WMH TOOL GROUP

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Elgin, Illinois 60124  
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**Part No. M-414495**  
Revision A1 02/07  
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# WARRANTY AND SERVICE

WMH Tool Group, Inc., warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these WMH Tool Group Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET® tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

## MORE INFORMATION

WMH Tool Group is consistently adding new products to the line. For complete, up-to-date product information, check with your local WMH Tool Group distributor, or visit [jettools.com](http://jettools.com).

## WARRANTY

JET products carry a limited warranty which varies in duration based upon the product. (MW = Metalworking, WW = Woodworking)

<b>90</b> DAY WARRANTY	<b>1</b> YEAR WARRANTY	<b>2</b> YEAR WARRANTY	<b>5</b> YEAR WARRANTY	<b>LIFE</b> LIFETIME WARRANTY
Lathe Accessories Machine Accessories Mobile Bases Safety Equipment Specialty Items Vise Accessories	Air Tools- Contractor Air Tools-Industrial Air Tools-Light Industrial Lubrication	Body Repair Kits Bottle Jacks Cable Pullers Cold Saws Hoists-Air Hoists-Electric Metalforming Mill/Drills Milling Machines	MW Bandsaws MW Drill Presses MW Finishing Equipment MW Lathes MW Precision Vises Pallet Trucks	Rigging Equip. Service Jacks Stackers Surface Grinders Tapping Trolleys-Air Trolleys-Electric Web Slings Winches-Electric
			Beam Clamps Chain Hoist- Manual Lever Hoists Pullers-JCH Models Scissor Lift Tables Screw Jacks	Trolleys-Geared Trolleys-Plain Winches-Manual WW Air Filtration WW Bandsaws WW Buffers WW Drill Presses WW Dust Collectors
			WW Dust Filters WW Dust Fittings WW Joints WW Lathes WW Planers WW Sanders WW Shapers WW Tablesaws	Fastening Tools Mechanics Hand Tools Striking Tools Vises (non-precision) Clamps

*Warranty reverts to 1 Year Warranty if woodworking (WW) products listed below are used for commercial, industrial or educational purposes.*

## WHAT IS COVERED?

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives and other consumables are excluded from warranty coverage.

## WHO IS COVERED?

This warranty covers only the initial purchaser of the product.

## WHAT IS THE PERIOD OF COVERAGE?

The general JET warranty lasts for the time period specified in the product literature of each product.

## WHAT IS NOT COVERED?

Five Year Warranties do not cover woodworking (WW) products used for commercial, industrial or educational purposes. Woodworking products with Five Year Warranties that are used for commercial, industrial or education purposes revert to a One Year Warranty. This warranty does not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or alterations, or lack of maintenance.

## HOW TO GET SERVICE

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option.

We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the product. In the event you choose to have the product returned, you will be responsible for the shipping and handling costs of the return.

## HOW STATE LAW APPLIES

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

## LIMITATIONS ON THIS WARRANTY

WMH TOOL GROUP LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

WMH TOOL GROUP SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

WMH Tool Group sells through distributors only. The specifications in WMH catalogs are given as general information and are not binding. Members of WMH Tool Group reserve the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever. JET® branded products are not sold in Canada by WMH Tool Group.

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# Warnings

1. Read and understand the entire owners manual before attempting assembly or operation.
2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace the warning labels if they become obscured or removed.
4. This band saw is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a band saw, do not use until proper training and knowledge have been obtained.
5. Do not use this band saw for other than its intended use. If used for other purposes, WMH Tool Group disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
6. Always wear approved safety glasses/face shields while using this band saw. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
7. Before operating this band saw, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do **not** wear gloves.
8. Wear ear protectors (plugs or muffs) during extended periods of operation.
9. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
  - Lead from lead based paint.
  - Crystalline silica from bricks, cement and other masonry products.
  - Arsenic and chromium from chemically treated lumber.Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.
10. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
11. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
12. Make certain the machine is properly grounded.
13. Make all machine adjustments or maintenance with the machine unplugged from the power source.
14. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
15. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
16. Make sure the band saw is firmly secured to the floor or bench before use.
17. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
18. Provide for adequate space surrounding work area and non-glare, overhead lighting.
19. Keep the floor around the machine clean and free of scrap material, oil and grease.
20. Keep visitors a safe distance from the work area. **Keep children away.**

# Warnings

21. Make your workshop child proof with padlocks, master switches or by removing starter keys.
22. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
23. Maintain a balanced stance at all times so that you do not fall or lean against the blade or other moving parts. Do not overreach or use excessive force to perform any machine operation.
24. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
25. Use recommended accessories; improper accessories may be hazardous.
26. Maintain tools with care. Keep blades sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
27. Make sure the work piece is held securely in the vise before operating. Never use your hand to hold the work piece.
28. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
29. Never leave the machine running unattended. Turn off the power and do not leave the machine until it comes to a complete stop.
30. Remove loose items and unnecessary work pieces from the area before starting the machine.

**Familiarize yourself with the following safety notices used in this manual:**

**CAUTION** This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

**WARNING** This means that if precautions are not heeded, it may result in serious injury or possibly even death.

**- - SAVE THESE INSTRUCTIONS - -**

## Introduction

This manual is provided by WMH Tool Group covering the safe operation and maintenance procedures for a JET Model PB-85 or PB-150 Band Saw. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. This machine has been designed and constructed to provide years of trouble free operation if used in accordance with instructions set forth in this manual. If there are any questions or comments, please contact either your local supplier or WMH Tool Group. WMH Tool Group can also be reached at our web site: [www.wmhtoolgroup.com](http://www.wmhtoolgroup.com).

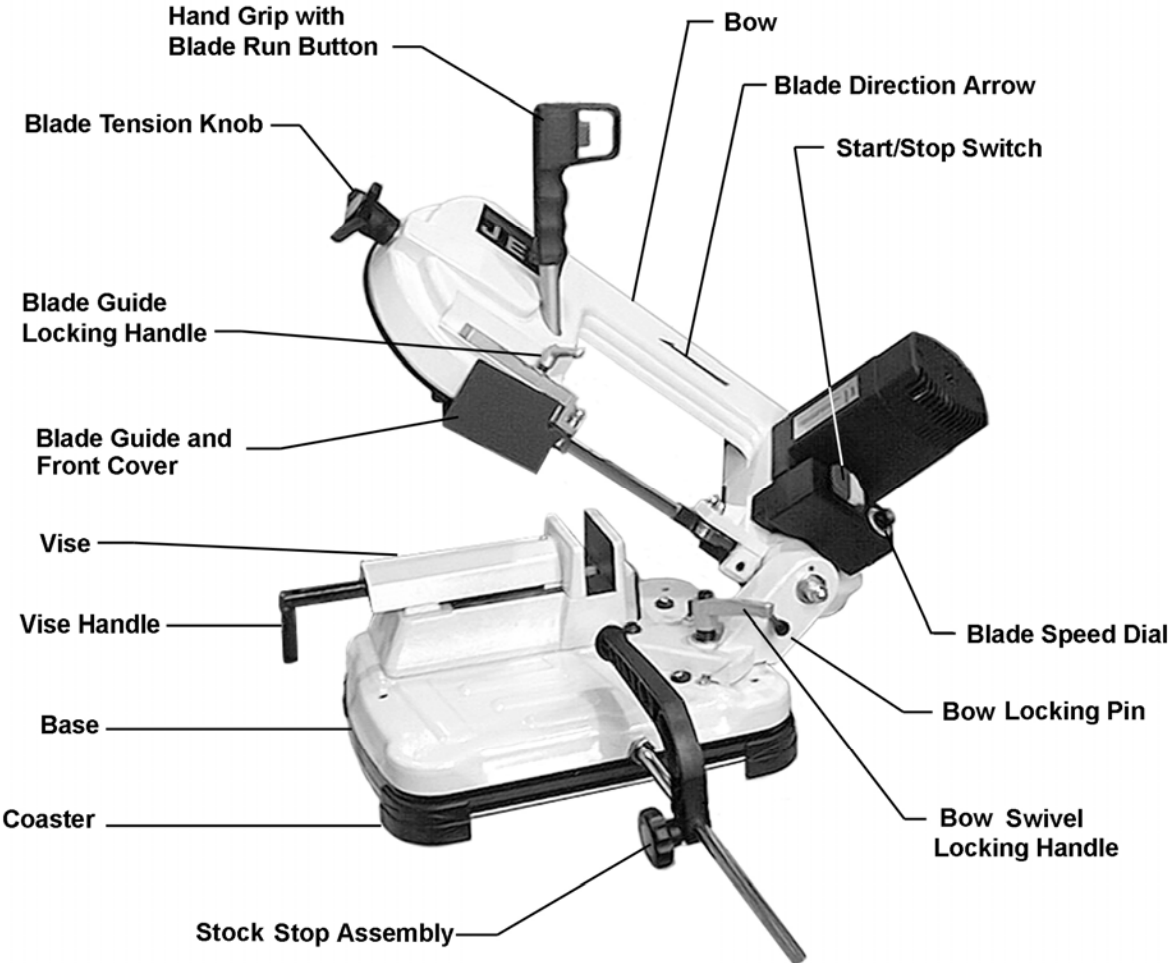
## Specifications

Model Number .....	PB-85 .....	PB-150 .....
Stock Number .....	414495 .....	414496 .....
Motor .....	850W, 1Ph, 115V .....	1800W, 1Ph, 115V .....
Blade Length (in.).....	52.36 .....	68.3 .....
Blade Width (in.).....	0.5 .....	0.5 .....
Blade Speeds (FPM).....	80-260 .....	80-260 .....
Round Capacity at 90° (in.).....	3.35 .....	5.5 .....
Round Capacity at 45° (in.).....	2.55 .....	3.54 .....
Rectangular Capacity at 90° (in.).....	3.35 .....	5.5 .....
Rectangular Capacity at 45° (in.).....	2.36 .....	4 .....
Miter Angle (deg.).....	0 to 45 .....	0 to 60 .....
Overall Dimensions (in.) (L x W x H).....	33.5 x 14.2 x 25.6 .....	40.1 x 27.6 x 35.4 .....
Noise Emission, average (dB).....	82 idling; 84.3 operating .....	79 idling; 81.2 operating .....
Net Weight (lbs.) .....	35 .....	123 .....
Shipping Weight (lbs.) .....	42 .....	165 .....

The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, WMH Tool Group reserves the right to change specifications at any time and without prior notice, without incurring obligations.

# Features and Terminology

Model PB-85 is shown; features are similar for the PB-150.



## Unpacking

Open shipping container and check for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard any shipping material until the band saw is assembled and running properly.

Compare the contents of your container with the following parts list to make sure all parts are intact. Missing parts, if any, should be reported to your distributor. Read the instruction manual thoroughly for assembly, maintenance and safety instructions.

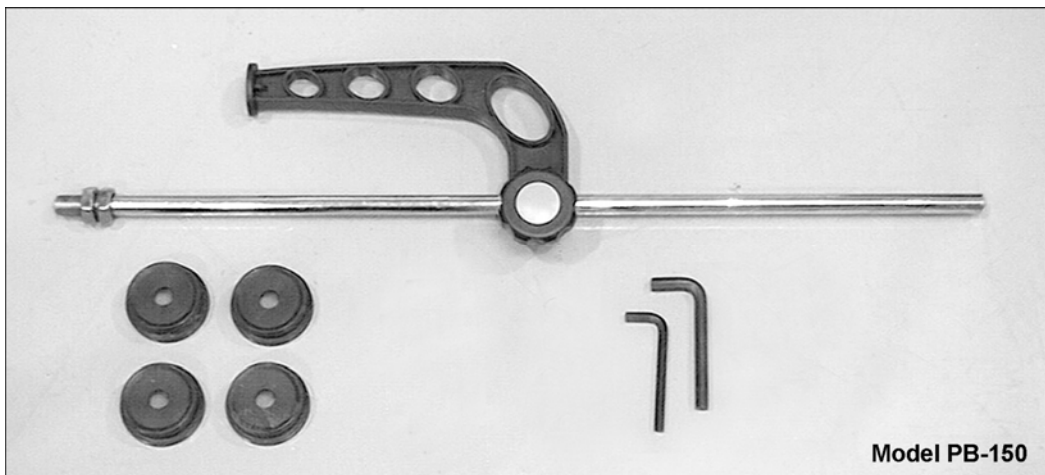
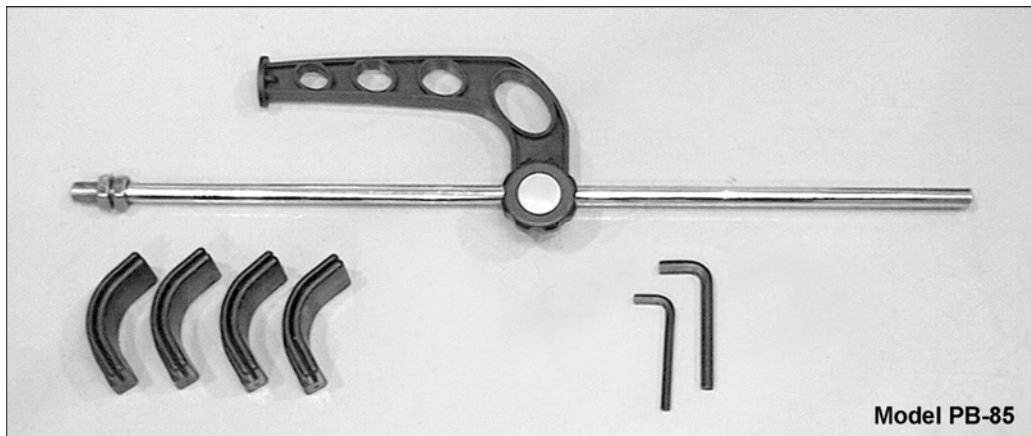
## Contents of the Shipping Container

### (Model PB-85)

- 1 Band Saw
- 1 Work Stop Assembly (with two hex nuts)
- 4 Curved Coasters
- 2 Hex Wrenches (6 and 8mm)
- 1 Owner's Manual
- 1 Warranty Card

### (Model PB-150)

- 1 Band Saw
- 1 Work Stop Assembly (with two hex nuts)
- 4 Round Coasters
- 2 Hex Wrenches (6 and 8mm)
- 1 Owner's Manual
- 1 Warranty Card



### **▲WARNING**

Read and understand the entire contents of this manual before attempting set-up or operation! Failure to comply may cause serious injury.



## Assembly

**⚠WARNING** The Band Saw should be disconnected from power during assembly.

When transporting the **PB-85** band saw, it can be lifted by the bow when the cutting arm is locked in the down position. See Figure 1. Make sure the bow has been lowered all the way and the pin has been pushed in to secure the bow before transporting.

The **PB-150** is heavy; use an assistant to help lift it by the base.

Unpainted surfaces of the band saw are treated with a rust preventative. Clean all rust protected surfaces with a soft cloth dampened with a cleaner/degreaser. Do not use an abrasive pad. Do not use paint thinner, lacquer thinner, gasoline or mineral spirits; these will damage painted surfaces.

The band saw can be operated without securing it to a table or workbench, using the four coasters provided. **Model PB-85:** Place the band saw on its side and install the four curved coasters (Figure 2) by pushing them onto the bottom edges as shown. **Model PB-150:** push the four round coasters into the circular recesses beneath the cast iron base (Figure 3).

If you desire to secure the band saw to a table or stand, use screws and flat washers through the holes in the base (three holes in the PB-85, four in the PB-150). 5/16" diameter screws are recommended for this. NOTE: Install the stock stop *before* mounting the band saw to a table or stand.

A metal stand (stock no. 414497) designed especially for the portable band saw can be purchased from your JET distributor.

### Stock Stop

With the band saw still resting on its side, install the stock stop. See Figure 2.

1. Remove the outer hex nut from the stock stop rod, and slide the rod into the hole at the front of the band saw's base.
2. Re-install the outer hex nut onto the threads of the rod from inside the base, as shown in Figure 2.
3. Tighten both hex nuts with a wrench.
4. Slide the stock stop onto the rod and tighten the knob (see Figure 7).

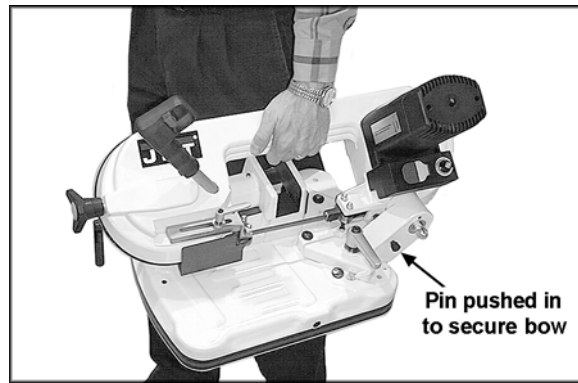


Figure 1

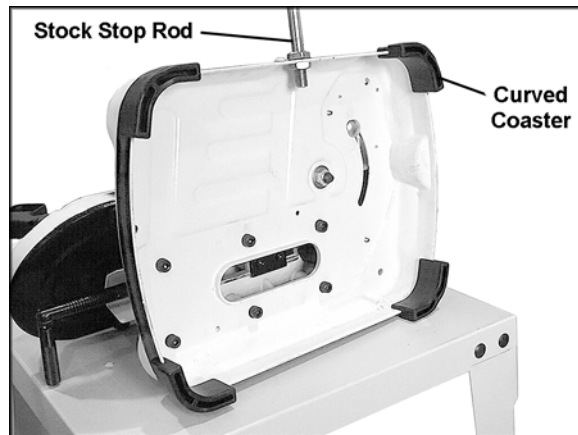


Figure 2  
(PB-85 shown)



Figure 3  
(PB-150 only)

# Grounding Instructions

**⚠WARNING** This machine must be properly grounded while in use to protect the operator from electric shock.

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This band saw is equipped with an electric cord having an equipment-grounding conductor and a grounding plug similar to that shown in Figure 4. The plug must be inserted into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor, with insulation having an outer surface that is green with or without yellow stripes, is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded. Use only three wire extension cords that have three-prong grounding plugs and three-pole receptacles that accept the machine's plug.

## 115 Volt Operation

As received from the factory, your band saw is ready to operate at 115 volt power, using an outlet and a plug that look similar to those illustrated in Figure 4.

For the **Model PB-85**, a 15 amp circuit is recommended, which includes wires rated for at least 15 amp, and a 15 amp circuit breaker.

For the **Model PB-150**, a 20 amp circuit is recommended, which includes wires rated for at least 20 amp, and a 20 amp circuit breaker.

A temporary adapter, which looks like the adapter illustrated in Figure 5, may be used to connect this plug to a two-pole receptacle as shown, if a properly grounded outlet is not immediately available. The temporary adapter should **only be used until a properly grounded outlet can be installed by a qualified electrician.**

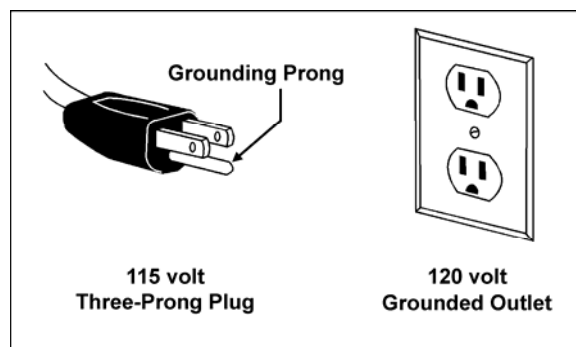


Figure 4

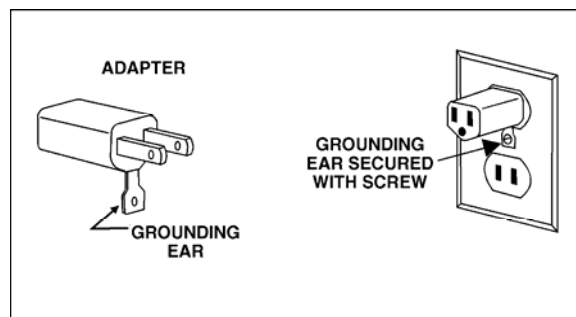


Figure 5

The green colored rigid ear, lug or tab, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box, as shown in Figure 5.

## Extension cords

If an extension cord is necessary, make sure the cord rating is suitable for the amperage listed on the machine's motor plate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

Use the chart in Figure 6 as a general guide in choosing the correct size cord. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

**Recommended Gauges (AWG) of Extension Cords**

Amps	Extension Cord Length *					
	25 feet	50 feet	75 feet	100 feet	150 feet	200 feet
< 5	16	16	16	14	12	12
5 to 8	16	16	14	12	10	NR
8 to 12	14	14	12	10	NR	NR
12 to 15	12	12	10	10	NR	NR
15 to 20	10	10	10	NR	NR	NR
21 to 30	10	NR	NR	NR	NR	NR

\*based on limiting the line voltage drop to 5V at 150% of the rated amperes.

NR: Not Recommended.

Figure 6

## Adjustments

### Stock Stop

The stock stop is useful for making multiple cuts of the same length. Simply determine the stock stop's position, then place the end of successive workpieces against the stock stop. See Figure 7.

Loosen the knob and slide the stock stop to the desired place on the rod. The stock stop can be installed on the rod in reverse position, for cutting longer workpieces. Always tighten the knob before operating.



Figure 7

### Blade Guide and Bearings

1. Disconnect machine from power source.
2. The front bearing (B, Figure 8) is mounted to an eccentric bushing and is adjustable. Loosen the cap nut (A, Figure 8) and rotate the front bearing (B, Figure 8) until the bearing just lightly contacts the blade. Do not pinch the blade.
3. Re-tighten cap nut (A, Figure 8).
4. Repeat for the other guide bearing assembly.
5. There should be minimal exposure of the blade during cutting operations. Loosen the handle (C, Figure 8) and slide the blade guide assembly (D, Figure 8) as close to the workpiece as possible without interfering with the workpiece.
6. Re-tighten handle.

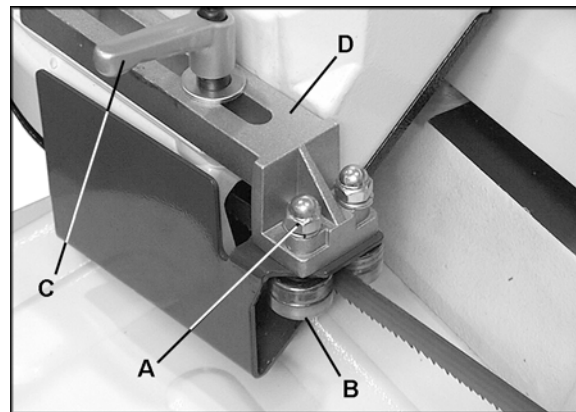


Figure 8

## Miter Cuts

The band saw's bow can be swiveled for miter cuts (up to 45° on the Model PB-85; up to 60° on the Model PB-150). Loosen the handle (A, Figure 9) and pivot the bow to the desired angle on the scale (B, Figure 9).

Adjustable stops (C, Figure 9) for square and 45° enable a quick setup.

NOTE: The handle (A, Figure 9) can be adjusted so that it does not interfere with other parts of the machine. Simply pull up on the handle, rotate it on the pin, then release the handle making sure it seats itself properly on the pin.

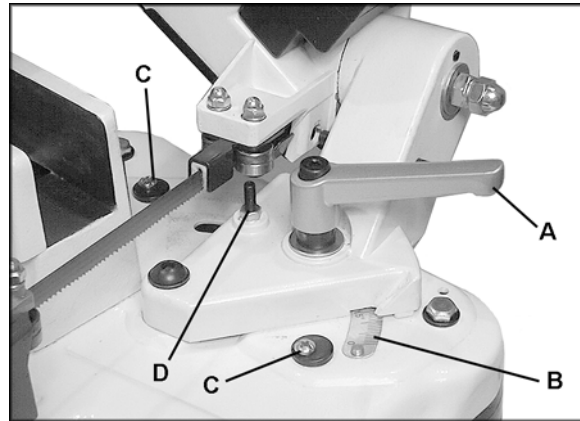


Figure 9

## Bow Depth Stop

The stop (D, Figure 9) controls the depth to which the bow falls and prevents the blade from contacting the base. This stop has been set at the factory. If future adjustment is ever needed, loosen the hex nut and turn the screw with a hex wrench. When the depth stop is properly set, retighten the hex nut.

## Blade Tension

Rotate the knob (Figure 10) clockwise to tighten the blade on the wheels. Do not overtighten.

The model PB-150 has a tension indicator, shown in Figure 11. The tension is correct when the indicators are aligned.

## Blade Tracking

**⚠WARNING** Tracking the blade requires that the band saw be operating while the back cover is removed. Use extreme caution.

Blade tracking has been set at the factory and should require no adjustment. Since tracking can only be accomplished with the blade moving and the back cover removed, it is suggested that any blade tracking be accomplished by qualified personnel who are familiar with this type of adjustment and the dangers associated with it.

Tracking is set properly when the back of the blade, while running, lightly touches the lip of the wheel. NOTE: Over-tracking (allowing blade back to rub hard against wheel lip) will damage the blade wheels and blade.

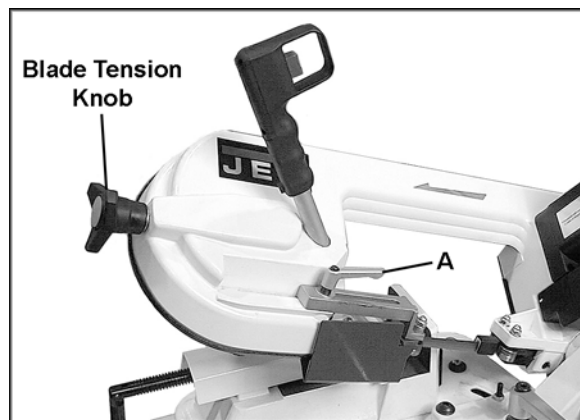


Figure 10

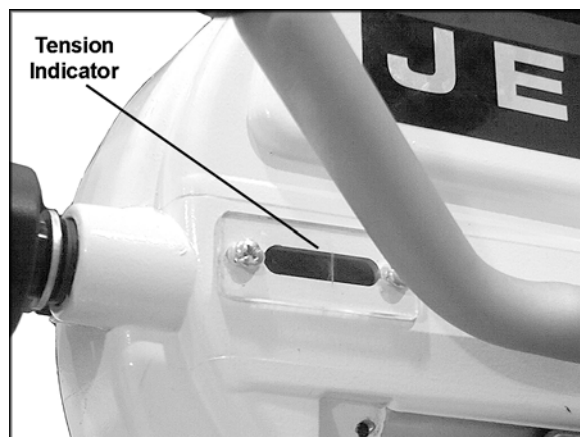


Figure 11  
(Model PB-150 only)

## Blade Replacement

1. Disconnect machine from power source.
2. Raise the bow to vertical position.
3. Loosen the handle (A, Figure 10) and lower the blade guide and front cover (Figure 12) as far as possible.
4. Remove the back blade cover by unscrewing the knobs.
5. Release the blade tension by turning the blade tension knob (Figure 10) counter-clockwise.
6. Extract the blade from the guides and then remove it from around the wheels. **(Wear gloves when handling blades to prevent injury.)**
7. Inspect the new blade for flaws (cracks, broken teeth, bending) before installing. The blade should be sharp and have a proper set. Do not use a faulty saw blade.
8. Install the new blade through the guides and around the wheels, making sure the teeth are pointing in the proper cutting direction. See Figure 13.
9. The blade should be tensioned and tracked properly before proceeding. See “Blade Tension” and “Blade Tracking” above.
10. Install the back blade cover and re-connect band saw to power source.
11. The new blade must now be “run in.” A carefully run-in blade lasts longer and gives better performance. Let the blade run idle for about two minutes, then perform two or three cuts, preferably on a solid workpiece of .40 to .50 millimeter diameter. Use very light pressure on the blade, gradually increasing pressure with each cut. See under “Operation” for cutting procedures.

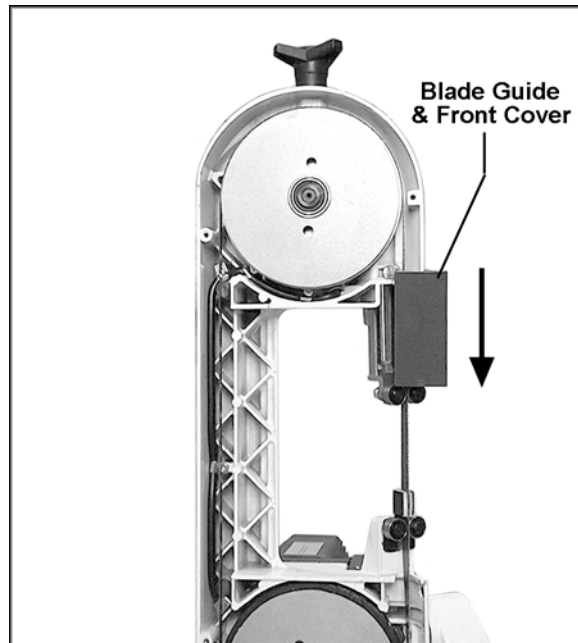


Figure 12

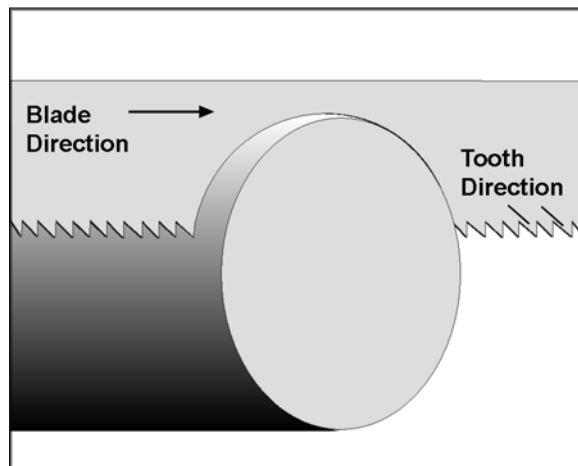


Figure 13

## Vise Adjustment

Place the workpiece against the fixed jaw, and rotate the handle (Figure 14) clockwise to move the adjustable jaw against the workpiece.

The vise should be tight enough that round stock will not roll. For short workpieces, make sure enough of the workpiece is gripped within the vise to ensure a stable cut. For very long workpieces, use table extensions, roller stands, etc. to help support them.

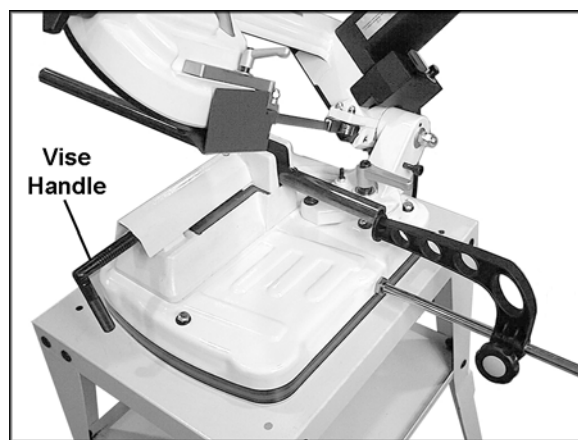


Figure 14

## Operation

**CAUTION** The PB-85 and PB-150 Band Saws have been designed for dry cutting of metals only. Also, do not cut magnesium as this may present a fire hazard.

Support long workpieces with roller stands.

The start/stop switch contains a safety feature. To prevent the band saw from being turned on, pull out the section of the switch, as shown in Figure 15, and store it in a safe place. To operate the band saw, re-insert the switch section.

The band saw has an internal thermal overload to protect the motor, and will activate in case of numerous successive cuts or constant overfeeding. If the machine suddenly shuts off, release the button on the hand grip. Wait several minutes for the thermal overload to re-set itself, then press the hand grip button again.

Remove cut or jammed workpieces only when the motor has been turned off and blade is at a complete standstill.

### General Operating Procedure:

1. Verify that all guards, covers, etc. are in place and in working order, and the blade is tensioned properly.
2. Place workpiece in vise and tighten vise. The workpiece should be fitted directly between the jaws without adding other objects.

When the workpiece to be cut is a profiled section, flat piece or special shape, refer to the examples shown in Figure 16 for proper clamping positions. The top row shows acceptable clamping positions, the bottom row shows unacceptable positions.

If the thickness of the profiled section is very thin, a piece which duplicates the profile should be fitted inside the workpiece itself, to prevent the workpiece being crushed between the jaws.

**WARNING** Never hold a workpiece by hand when cutting it. The workpiece should be firmly secured in the vise. Never reach into the cutting area during cutting operations.

3. Set the blade guide assembly as close to the workpiece as possible to prevent excess exposure of the blade during the cut.
4. Flip up the switch to START position.

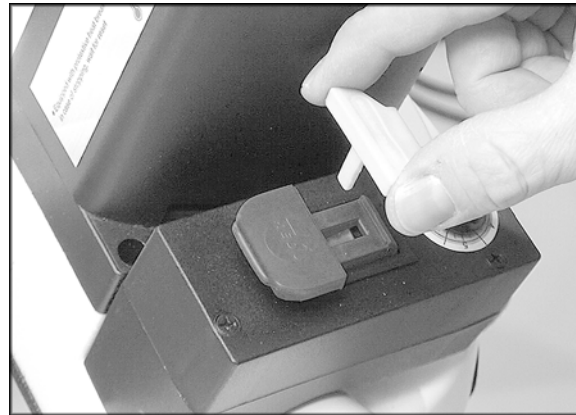


Figure 15

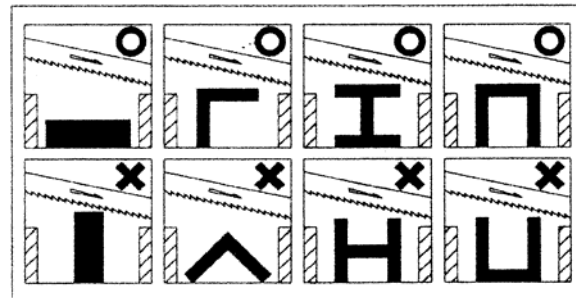


Figure 16

PART DIMENSIONS (mm)	RECOMMENDED TOOTHING (tooth for inch)	CUTTING SPEED (m/min)	RECOMMENDED CUTTING TIMES (min. sec.)	
Solid ●	30	8/12	60	0' 40"
	50	6	60	2' 00"
	85	6	60	5' 00"
Solid ■	30	8/12	60	1' 10"
	50	6	60	2' 10"
	85	6	60	8' 00"
Solid ■	25x35	8/12	60	1' 10"
	40x50	6	60	2' 30"
	85x105	6	60	11' 00"
Tubing ○	30 x s. 1	18	80	0' 05"
	40 x s. 2	14	80	0' 15"
	50 x s. 5	8/12	80	0, 50"
Tubing □	30 x s. 1	18	80	0' 10"
	50 x s. 2	14	80	0' 30"

Figure 17

5. Rotate the speed dial to the desired setting. (The dial can also be rotated while the blade is running.) Refer to the chart in Figure 17 for recommended blade speed and downfeed rate settings.
6. Press the blade run button on the hand grip to start the saw blade.
7. Use the hand grip to slowly bring down the bow until the blade makes light contact with the workpiece. Now begin to apply gradual pressure on the workpiece and complete the cut.
8. Release the blade run button on the hand grip and push the bow back up toward vertical.
9. If finished with the operation, push the STOP button.

### Blade Speed and Downfeed Pressure

The Band Saw offers continual variable speed within the specified range; the speed of the blade is set using the speed control dial next to the switch.

A general rule is the harder the material being cut, the slower the blade speed.

Also important is the downfeed pressure, which is the amount of pressure directed by the blade against the workpiece; this is controlled manually by the operator using the grip handle. Downfeed pressure can be deduced by "Recommended Cutting Times" in Figure 17.

Following are general recommendations for speed control dial positions as they relate to the various speeds and applications:

- 30 m/min. (dial position 1) for stainless steel, alloy steel and bearing bronzes.
- 45-50 m/min. (dial position 2-3) for mild steel, hard brass or bronze.
- 60-80 m/min. (dial position 4-6) for soft brass, aluminum or other light materials.

Material chips or shavings are the best indicator of proper blade speed and downfeed pressure. The ideal chip is thin, tightly curled and warm to the touch. Chips that range from golden brown to black indicate excessive force. Blue chips indicate extreme heat from too high a blade speed, which will shorten blade life. Thin or powdered chips indicate insufficient downfeed rate.

## Maintenance

**⚠WARNING** Disconnect the band saw's plug from the power source before doing any maintenance.

Clean the band saw regularly after each day's work. Clear metal shavings with a suction device or brush, not your hands. Do not use compressed air.

If the power cord is worn, cut, or damaged in any way, have it replaced immediately.

All of the ball bearings are packed with grease at the factory. They require no further lubrication.

Lubricate the vise lead screw with a general-purpose grease.

Inspect the blade blocks (Figure 18). If they are worn, they should be replaced. Remove the blade and replace the blocks.

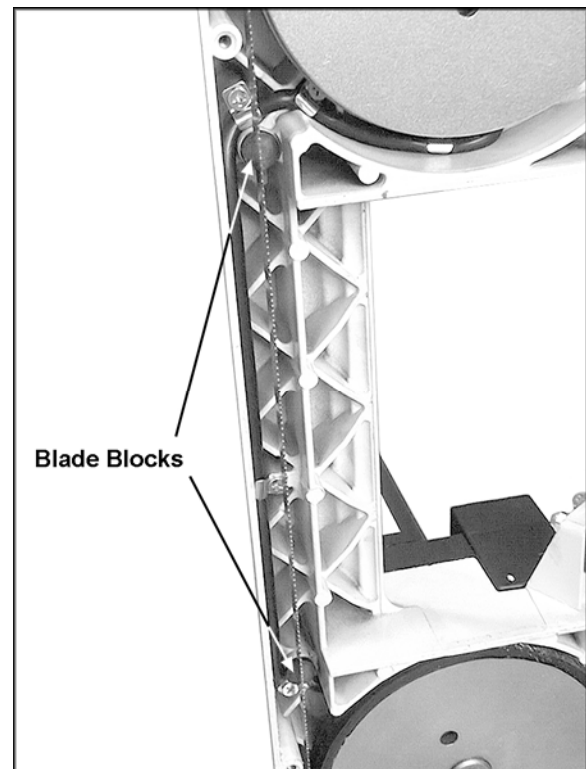


Figure 18

If the band saw will be unused for a period of time, slacken the blade tension before storage. This will help prolong the life of the blade.

# Troubleshooting

Trouble	Probable Cause	Remedy
Motor will not start, or stops suddenly.	No incoming power.	Check plug connection.
	Blown electrical panel fuses.	Replace fuses.
	Thermal overload has tripped.	Release run button and wait several minutes for overload to reset itself.
	Defective motor, switch, power cable, or plug.	Qualified electrician/service personnel should inspect these items.
Overload trips frequently.	Motor is overheating.	Check that motor air intakes are clear.
	Downfeed pressure is too fast.	Reduce downfeed pressure.
	Motor is faulty.	Motor should be inspected by qualified electrician/service personnel.
Band Saw vibrates excessively.	Stand is on uneven surface.	Adjust stand for even support.
	Saw blade has cracks.	Replace blade immediately.
	Too heavy a cut.	Reduce downfeed pressure and blade speed.
Miter cuts not accurate.	Setting of the miter stops is not correct.	Adjust the stops to correct positions. See page 12. Use an adjustable square or protractor to check angle settings.
	Blade guides not set correctly.	See page 11 for proper adjustment.
Cuts not square.	Downfeed pressure too great.	Decrease downfeed pressure.
	90° angle stop is not set correctly.	Adjust stop until blade is square with vise.
	Incorrect blade tothing in relation to workpiece.	Consult the cutting parameters (blade teeth, cutting speed) in Figure 17.
	Incorrect adjustment of bearing guides and guide assembly.	Re-adjust these. See page 11.
	Workpiece incorrectly positioned in vise.	Check positioning and clamping in the vise.
	Poor blade tension.	Check and correct if needed. See page 12.
Finished surface of workpiece is rough, unsatisfactory.	Blade is dull, or its parameters are not right for thickness of piece being cut.	Use proper blade tooth configuration for that particular workpiece. See chart, Figure 17.
	Downfeed pressure too great.	Reduce downfeed pressure.
	Blade tension too low.	Increase blade tension.

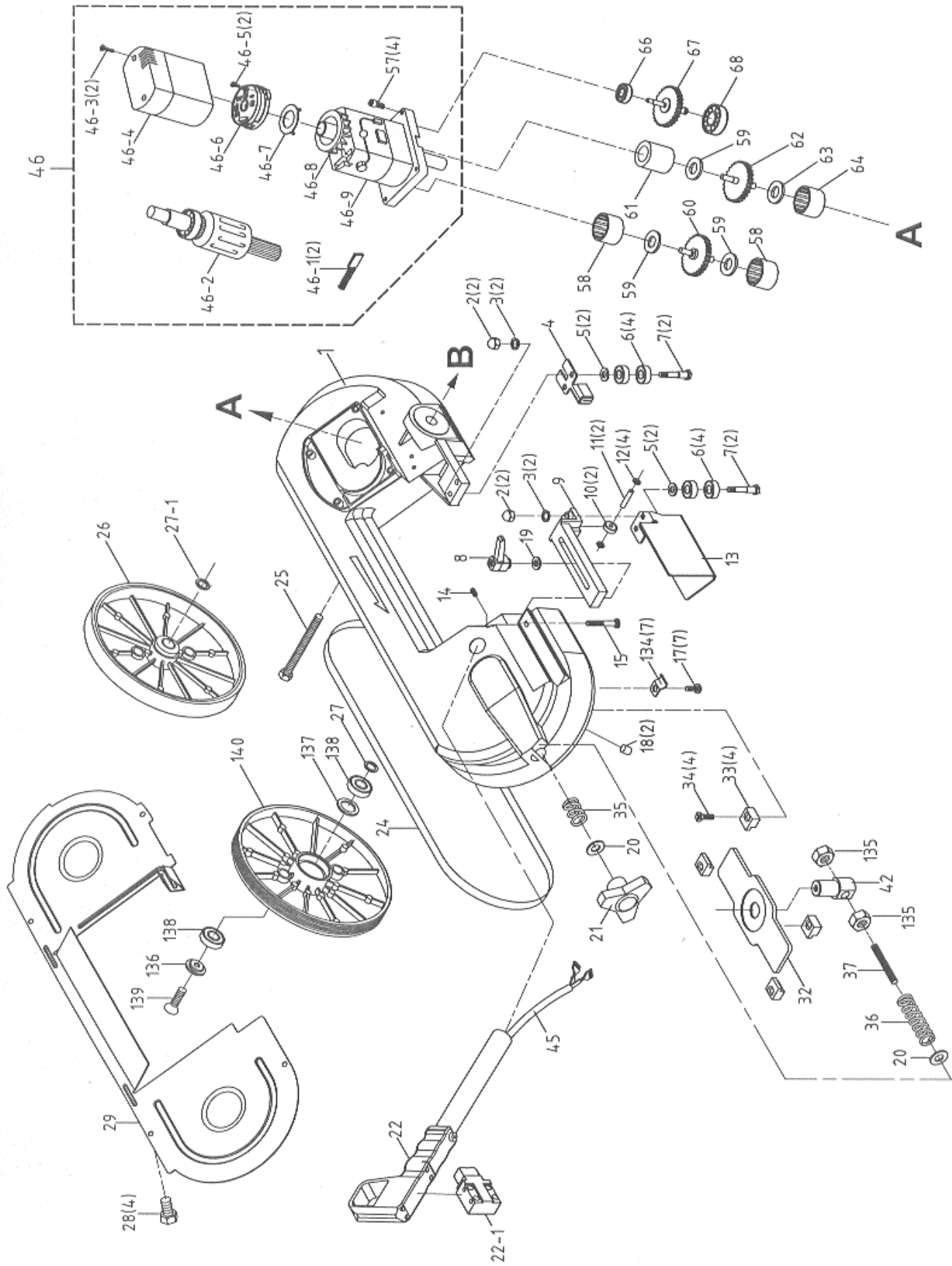


## **Replacement Parts**

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 between 7:30 a.m. and 6:00 p.m. (CST), Monday through Friday. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

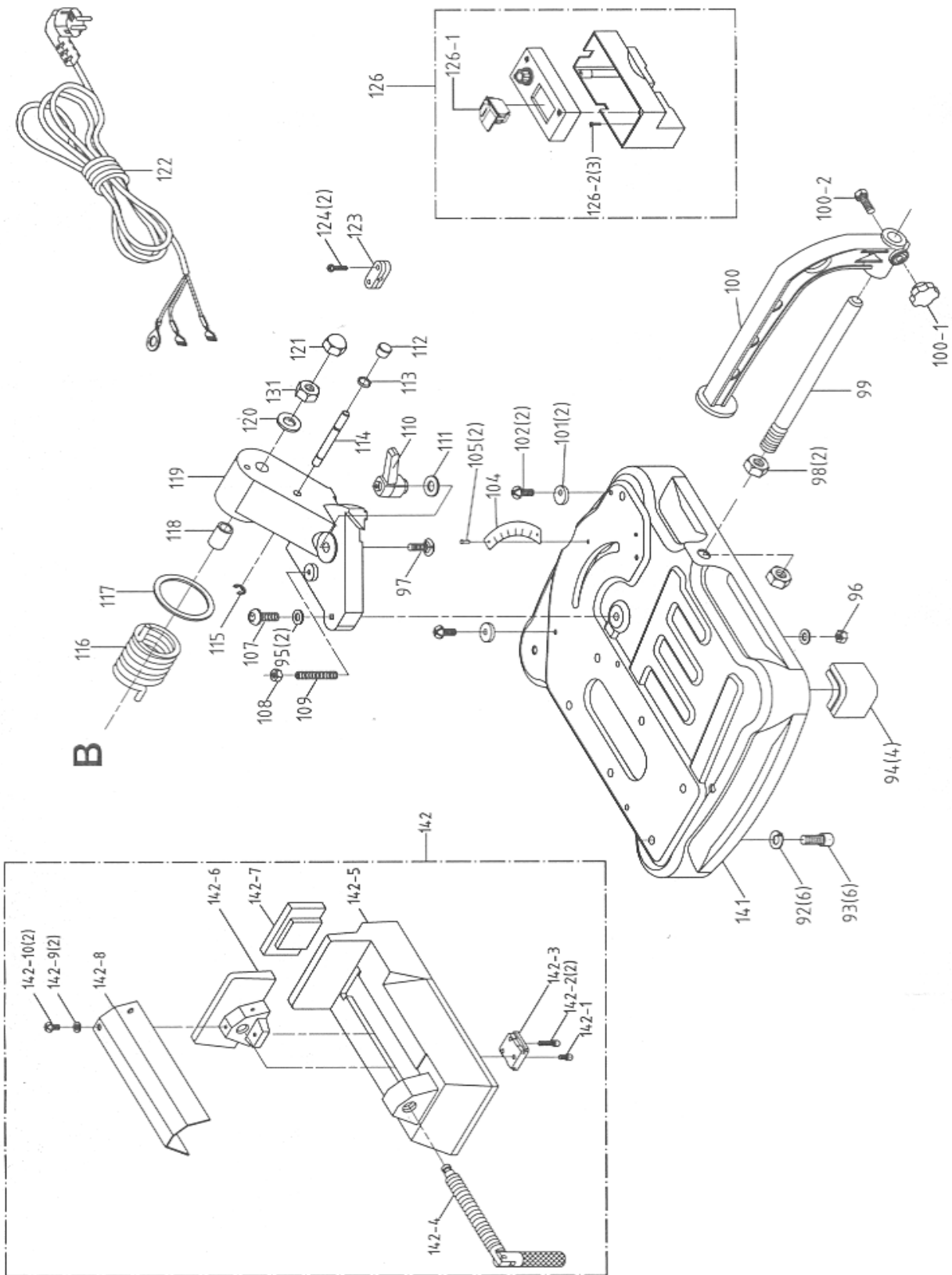
# Model PB-85 Bow Assembly

(see parts list on pages 20-21)



# Model PB-85 Base Assembly

(see parts list on pages 20-21)



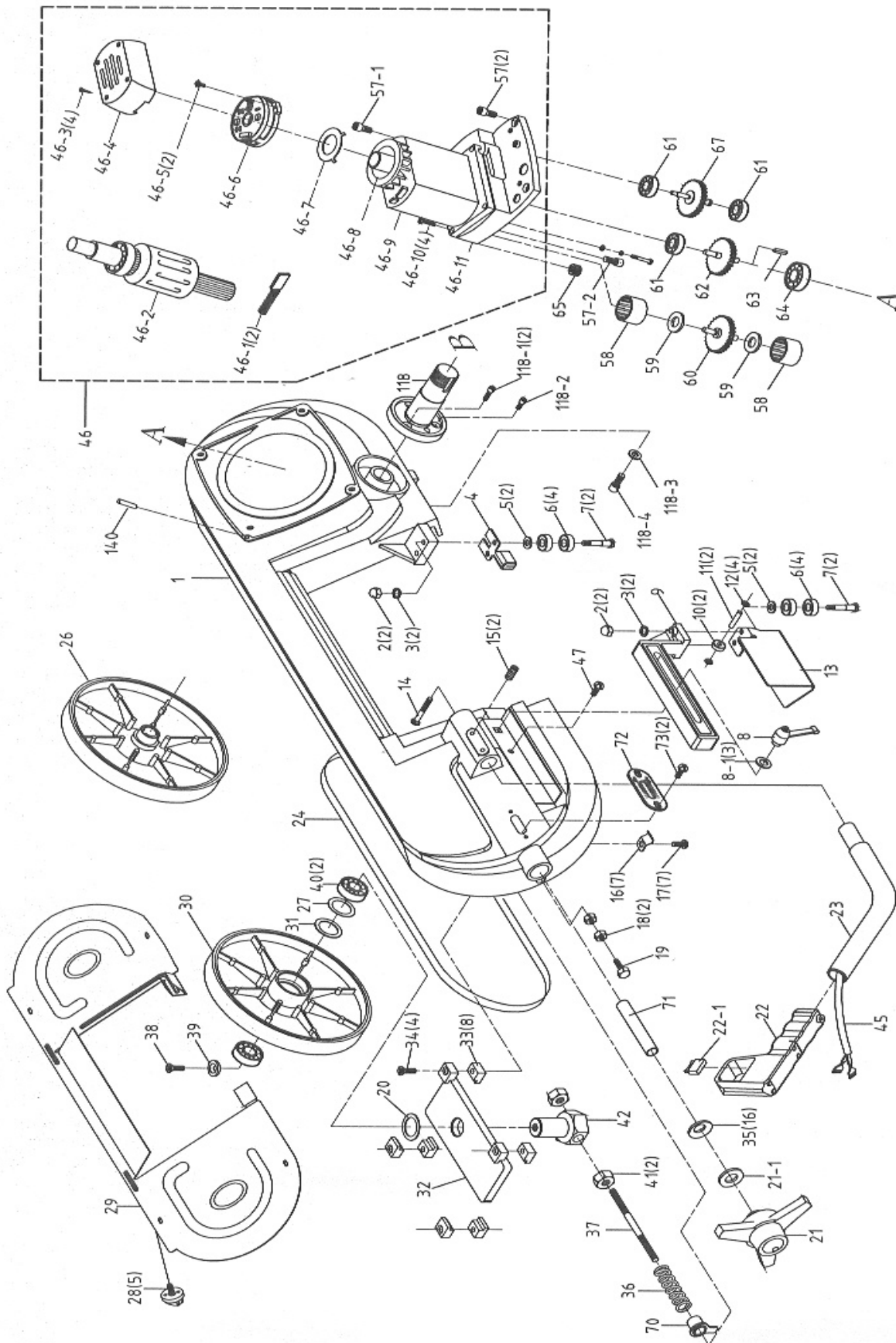
## Parts List: Model PB-85

Index No.	Part No.	Description	Size	Qty
1	PB85-001	Body Frame		1
2	TS-1540041	Hex Nut	M6	4
3	TS-1551041	Lock Washer	M6	4
4	PB85-004	Guide Bracket		1
5	PB85-005	Washer	12 x 6.2 x 0.8t	4
6	PB85-006	Bearing	607-2RS	8
7	PB85-007	Eccentric Shaft		4
8	PB85-008	Knob		1
9	PB85-009	Adjustable Bracket (Front)		1
10	PB85-010	Bearing	624-2RS	2
11	PB85-011	Pin	Ø4 x 19.8L	2
12	PB85-012	Washer	7.7 x 4.3 x 0.6t	4
13	PB85-013	Front Blade Cover		1
14	TS-1524021	Socket Set Screw	M8-1.25x10L	1
15	PB85-015	Carriage Screw	M6-1x30L	1
17	TS-1534041	Phillips Flat Head Machine Screw	M5-0.8x10L	6
18	PB85-018	Bracket		2
19	TS-1550041	Flat Washer	M6	1
20	TS-1550061	Flat Washer	M8	2
21	PB85-021	Knob		1
22	PB85-022	Handle		1
22-1	PB85-022-1	Limit Switch		1
24	414320	Blade	52-1/2"x.025"x6/10VT	1
	414321	Blade	52-1/2"x.025"x10/14VT	1
25	PB85-025	Fixed Bolt		1
26	PB85-026	Drive Wheel		1
27	PB85-027	Washer	21.8 x 15.2 -2t	1
27-1	PB85-027-1	Washer	21.8 x 15.2 -1t	1
28	PB85-028	Hand Knob		4
29	PB85-029	Back Blade Cover		1
32	PB85-032	Tension Bracket		1
33	PB85-033	Slide Dog		4
34	PB85-034	Flat Cross Head Screw	M5-0.8 x 15L	4
35	PB85-035	Spring		1
36	PB85-036	Spring		1
37	PB85-037	Bolt		1
42	PB85-042	Shaft		1
45	PB85-045	Cable		1
46	PB85-046	Motor	110V	1
46-1	PB85-046-1	Brush		2
46-2	PB85-046-2	Motor Rotor Assembly		1
46-3	PB85-046-3	Phillips Pan Head Machine Screw	M3.5 x 35L	2
46-4	PB85-046-4	Motor Cover		1
46-5	TS-1532052	Phillips Pan Head Machine Screw	M4 x 15L	2
46-6	PB85-046-6	Driver Assembly	CF-16(110V)	1
46-7	PB85-046-7	Separator		1
46-8	PB85-046-8	Fan		1
46-9	PB85-046-9	Bracket		1
57	TS-1503041	Socket Head Cap Screw	M6-1 x 15L	4
58	PB85-058	Bearing	HK0609	2
59	PB85-059	Washer	9.9 x 6.1 x 0.5t	3
60	PB85-060	Gear-A		1
61	PB85-061	Bushing		1
62	PB85-062	Gear-B		1
63	PB85-063	Washer	11.1 x 8.1 x 0.5t	1
64	PB85-064	Bearing	HK0810	1
66	BB-627VV	Bearing	627-2RS	1

67	PB85-067	Gear-C		1
68	BB-6202LLU	Bearing	6202LLU	1
92	TS-2361081	Lock Washer	M8	6
93	TS-1504041	Socket Head Cap Screw	M8-1.25 x 20L	6
94	PB85-094	Coaster		4
95	PB85-095	Washer	Ø 20 x 10.3 -2t	2
96	TS-1540071	Nut	M10	1
97	PB85-097	Carriage Screw	M10-1.5 x 33L	1
98	TS-2310142	Hex Nut	M14 x P1.5	2
99	PB85-099	Stock Stop Rod		1
100	PB85-100	Stock Stop Bracket		1
100-1	PB85-101-1	Hand Knob		1
100-2	TS-1482061	Hex Cap Screw	M6-1 x 30L	1
101	PB85-101	Angle Limit Adjust		2
102	TS-1534032	Phillips Pan Head Machine Screw	M6-1x10L	2
104	PB85-104	Angle Gauge		1
105	PB85-105	Rivet	Ø 3.3 x 6L	2
107	TS-1505071	Socket Head Cap Screw	M10-1.5 x 45L	1
108	TS-1540041	Hex Nut	M6	1
109	TS-1503061	Socket Set Screw	M6-1 x 25L	1
110	PB85-110	Knob		1
111	TS-1550071	Washer	M10	1
112	PB85-112	Knob W/Shaft		1
114	PB85-114	Position pin		1
115	PB85-115	E Retaining Ring	E7	1
116	PB85-116	Spring		1
117	PB85-117	Washer	54.8 x 45 x 0.5t	1
118	PB85-118	Shaft Bushing		1
119	PB85-119	Swivel Arm		1
120	TS-1550071	Washer	M10	1
121	TS-1540071	Hex Nut	M10	1
122	PB85-122	Power cable		1
123	PB85-123	Cable Setting Nut		1
124	TS-2284202	Phillips Pan Head Machine Screw	4 x 20L	2
126	PB85-126	Switch Assembly		1
126-1	PB85-126-1	ON/OFF Switch	HY-18	1
126-2	PB85-126-2	Phillips Pan Head Machine Screw	3.5 x 35L	3
131	TS-1540071	Hex Nut	M10	1
134	PB85-134	Cable Clamp		6
135	TS-1540061	Hex Nut	M8	2
136	PB85-136	Clamp		1
137	PB85-137	Washer	Ø 21.8 x 15.2 x 2t	1
138	1819181	Bearing	6002-2RS	2
139	TS-1514021	Socket Head Flat Screw	M6 x 15L	1
140	PB85-140	Idler Wheel		1
141	PB85-141	Swivel Base		1
142	PB85-142	Vise Base Assembly		1
142-1	TS-1502021	Socket Head Cap Screw	M5-0.8 x 10L	1
142-2	TS-1502041	Socket Head Cap Screw	M5-0.8 x 15L	2
142-3	PB85-142-3	Vise Sliding Plate		1
142-4	PB85-142-4	Leadscrew		1
142-5	PB85-142-5	Vise Base		1
142-6	PB85-142-6	Vise Jaw Bracket		1
142-7	PB85-142-7	Plastic Bushing		1
142-8	PB85-142-8	Cover		1
142-9	TS-1550031	Flat Washer	M5	2
142-10	PB85-142-10	Phillips Pan Head Machine Screw	M5-0.8 x 5L	2
160	PB85-160	Star Washer	M5	1
161	TS-1533032	Phillips Pan Head Machine Screw	M5-0.8 x 10L	1

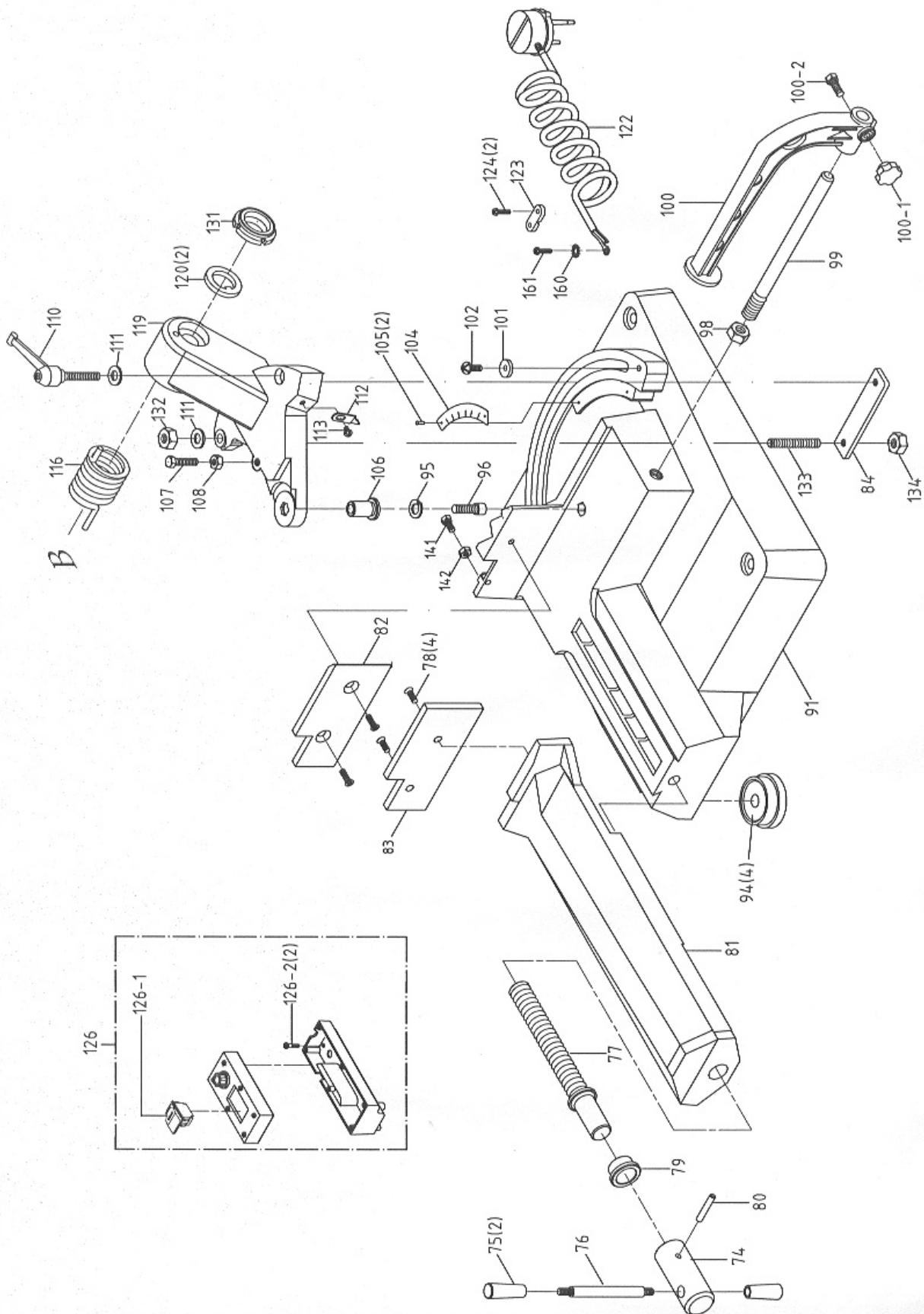
# Model PB-150 Bow Assembly

(see parts list on pages 24-26)



# Model PB-150 Base Assembly

(see parts list on pages 24-26)



## Parts List: Model PB-150

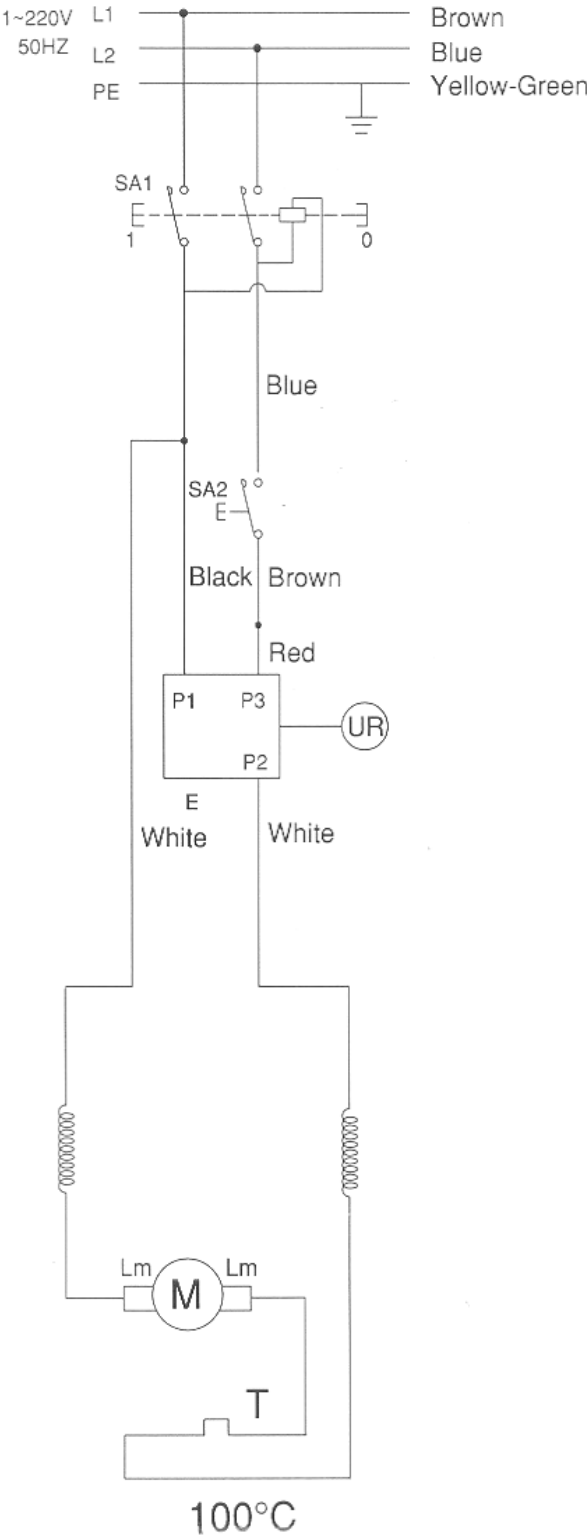
Index No.	Part No.	Description	Size	Qty
1	PB150-001	Body Frame		1
2	TS-1540041	Hex Nut	M6	4
3	TS-1551041	Lock Washer	M6	4
4	PB150-004	Guide Bracket		1
5	PB85-005	Washer	12 x 6.2 x 0.8t	4
6	PB85-006	Bearing	607-2RS	8
7	PB150-007	Eccentric Shaft		4
8	PB150-008	Knob		1
8-1	PB150-008-1	Washer	23 x 8.5 -2	3
9	PB150-009	Adjustable Bracket (Front)		1
10	PB85-010	Bearing	624-2RS	2
11	PB150-011	Pin	4 x 19.8L	2
12	PB150-012	Washer	7.7 x 4.3 x 0.6t	4
13	PB150-013	Front Blade Cover		1
14	PB150-014	Carriage Screw	M8 x 38L	1
15	TS-1503021	Socket Head Cap Screw	M6 x 10L	2
16	PB150-016	Clamp		7
17	TS-1534041	Phillips Flat Head Machine Screw	M5x10L	7
18	TS-1540041	Hex Nut	M6	2
19	TS-1482061	Hex Cap Screw	M6 x 30L	1
20	PB150-020	Washer	27.8 x 20.2 x 1.2t	1
21	PB150-021	Knob		1
21-1	PB150-021-1	Washer	26 x 10.5-3	1
22	PB150-022	Handle		1
22-1	PB150-022-1	Limit Switch		1
23	PB150-023	Connecting Tube		1
24	414322	Blade	68-1/4x1/2"x.025"x6/10VT	1
	414323	Blade	68-1/4x1/2"x.025"x10/14VT	1
26	PB150-026	Drive Wheel		1
27	PB150-020	Washer	27.8 x 20.2 x 1.2t	1
28	PB150-028	Plum handle		6
29	PB150-029	Back Blade Cover		1
30	PB150-030	Idler Wheel		1
31	PB150-031	Washer	27.8 x 20.2 x 1.6t	1
32	PB150-032	Tension Bracket		1
33	PB150-033	Slide Dog		8
34	PB150-034	Flat Cross Head Screw	M5 x 25L	4
35	PB150-035	Spring	23 x 12.2 x 1.5t	16
36	PB150-036	Spring		1
37	PB150-037	Bolt		1
38	PB150-038	Flat Cross Head Screw	M8 x 20L	1
39	PB150-039	Plate		1
40	BB-6204ZZ	Bearing	6204ZZ	2
41	TS-1540071	Hex Nut	M10	2
42	PB150-042	Shaft		1
45	PB150-045	Cable		1
46	PB150-046	Motor 110V		1
46-1	PB150-046-1	Brush		2
46-2	PB150-046-2	Motor Rotor Assembly		1
46-3	PB150-046-3	Flat Cross Head Screw	4 x 60L	4
46-4	PB150-046-4	Motor Cover		1
46-5	TS-1532052	Phillips Pan Head Machine Screw	4 x 15L	2
46-6	PB150-046-6	Driver TC-16 (110V)		1
46-7	PB150-046-7	Separator		1
46-8	PB150-046-8	Fan		1
46-9	PB150-046-9	Motor Cover		1
46-10	TS-2284252	Phillips Pan Head Machine Screw	M4 x 25L	4



46-11	PB150-046-11	Gear Box Cover		1
47	PB150-047	Phillips Pan Head Machine Screw	M5 x 5L	1
48	PB150-048	Phillips Pan Head Machine Screw	M3 x 80L	2
49	TS-1551041	Lock Washer	M3	2
50	PB150-050	Washer		2
57	TS-1503041	Socket Head Cap Screw	M6 x 16L	2
57-1	TS-1503091	Socket Head Cap Screw	M6 x 40L	1
57-2	TS-1503121	Socket Head Cap Screw	M6 x 55L	1
58	PB150-058	Bearing	HK1212	2
59	PB150-059	Washer	18 x 12 x 1t	2
60	PB150-060	Gear		1
61	BB-6200ZZ	Bearing	6200ZZ	3
62	PB150-062	Gear		1
63	PB150-063	Key	6 x 6 x 20L	1
64	6293531	Bearing	6205-2RS	1
65	PB150-065	Bushing		1
67	PB150-067	Gear		1
70	PB150-070	Tension Indicator		1
71	PB150-071	Tube		1
72	PB150-072	Tension Indicator Plate		1
73	TS-1533032	Phillips Pan Head Machine Screw	M5 x 10L	2
74	PB150-074	Shaft Bushing		1
75	PB150-075	Knob		2
76	PB150-076	Handle Rod		1
77	PB150-077	Leadscrew		1
78	PB150-078	Flat Cross Head Screw	M8 x 15L	4
79	PB150-079	Bushing		1
80	PB150-080	Pin	6 x 30L	1
81	PB150-081	Vise Jaw Bracket		1
82	PB150-082	Vise Jaw Plate		1
83	PB150-083	Vise Jaw Plate		1
84	PB150-084	Screw Plate		1
91	PB150-091	Swivel Base		1
94	PB150-094	Coaster		4
95	TS-2361081	Lock Washer	M8	1
96	TS-1504081	Socket Head Cap Screw	M8 x 40L	1
98	TS-2310142	Hex Nut	M14 x P1.5	1
99	PB150-099	Stock Stop Rod		1
100	PB150-100	Stop Rod Bracket		1
100-1	PB150-100-1	Plum Handle		1
100-2	TS-1482061	Hex Cap Screw	M6 x 30L	1
101	PB150-101	Angle Margin		1
102	TS-1534032	Phillips Pan Head Machine Screw	M6 x 10L	1
104	PB150-104	Miter Gauge		1
105	PB150-105	Rivet	2 x 6L	2
106	PB150-106	Bushing		1
107	TS-1482031	Hex Cap Screw	M6 x 15L	1
108	TS-1540041	Hex Nut	M6	1
110	PB150-110	Knob		1
111	TS-1550071	Washer	M10	2
112	PB150-112	Angle Indicator		1
113	TS-133032	Phillips Pan Head Machine Screw	M5 x 8L	1
116	PB150-116	Spring		1
118	PB150-118	Shaft		1
118-1	TS-1503061	Socket Head Cap Screw	M6 x 25L	3
118-3	TS-1550071	Flat Washer	M10	1
118-4	TS-1505031	Socket Head Cap Screw	M10 x 25L	1
119	PB150-119	Swivel Arm		1
120	PB150-120	Washer		2
122	PB150-122	Power Cable	45 x 30 x 4t	1
123	PB150-123	Cable Setting Nut		1

124	TS-2284202	Phillips Pan Head Machine Screw	4 x 20L	2
126	PB150-126	Switch Assembly		1
126-1	PB150-126-1	ON/OFF Switch HY-18		1
126-2	5511819	Phillips Pan Head Machine Screw	M5 x 25L	2
131	PB150-131	Hex Nut	M30 x P1.5	1
132	TS-1540061	Hex Nut	M8	1
133	PB150-133	Leadscrew		1
134	TS-1540061	Hex Nut	M8	1
140	PB150-140	Pivot Pin	6 x 20L	1
141	TS-1482041	Hex Cap Screw	M6 x 20L	1
142	TS-1540041	Hex Nut	M6	1
160	PB85-160	Star Washer	M5	1
161	TS-1533032	Phillips Pan Head Machine Screw	M5 x 10L	1

# Electrical Connections: Model PB-85



# Electrical Connections: Model PB-150

